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ABSTRACT

A third-party evaluation was conducted to assess the second year's operation of the Experience Based Career Education (EBCE) program at Wichita (Kansas) High School East. The program proposal contained fourteen process objectives and twelve outcome objectives. The status of the process objective achievement was determined by interviewing program personnel and examining project records. Outcome objectives were assessed by administering several instruments. A pretest-posttest design was used to evaluate the attainment of the outcome objectives associated with academic achievement, self-esteem, career orientation, and sex bias. A self-administering check list/open-ended response form was used to collect summative impressions of the program from students, parents, and site resource people. Three site visits were also made. A change in program structure also was evaluated. Students were allowed to enroll in the EBCE program for the entire school year, the first semester, or the second semester. The objective measures of the achievement of EBCE program objectives revealed only minor differences between EBCE and control groups, which are suggestive of marginal achievement of objectives. The third-party assessment labeled the program a success and cited improvement made in formerly problematic areas identified by the first year's evaluation (available as ED 150 285). (The major portion of this document contains appended materials.) (BM)

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EXPERIENCE BASED CAREER EDUCATION AT WICHITA EAST HIGH SCHOOL: A THIRD-PARTY EVALUATION FOR YEAR TWO, 1977-78

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EXPERIENCE BASED CAREER EDUCATION AT WICHITA EAST HIGH SCHOOL: A THIRD-PARTY EVALUATION FOR YEAR TWO, 1977-78

Purpose

This report was prepared by third-party evaluators. Its purpose is to present an assessment of the second year's operation of the Experience Based Career Education (EBCE) program at Wichita High School East. The program proposal as revised on July 27, 1977, contained 14 process objectives and 12 outcome objectives. The main body of this assessment document contains a listing of the process and outcome objectives, along with either a nominal (yes/no) assessment of the objectives' statuses or a descriptive (statistical/narrative) assessment of status. To maintain ease of comparison from year to year, the format remains the same as last year's.

Overview of Evaluation Procedures

The status of process objective achievement was determined by interviewing program personnel and examining project records. Outcome objectives were assessed by administering instruments appropriate for measuring the outcome objectives (See Appendices A-F). A pretest-posttest design was used to evaluate the attainment of the outcome objectives associated with academic achievement, self-esteem, career orientation, and sex bias. A self-administering check list/open-ended response form was used to collect

summative impressions of the program from students, parents, and site resource people. In addition, three sites were visited by the evaluators to interview the resource people regarding their impressions of the program. A detailed summary of the evaluation procedures constitute Appendix A.

Five additional appendices detail the measurement and analysis procedures for Outcome Objectives 1, 2, 3, 11, and 12. They are: Appendix B--Pretest-posttest EBCE/control results on the Differential Aptitude Test; Appendix C--Career Development Inventory, pretest-posttest EBCE/control results; Appendix D--Coopersmith Self-Esteem Inventory, pretest-posttest EBCE/control results; Appendix E--Parent survey, Student Survey, Resource Survey, and interviews conducted with the resource persons at the work sites; Appendix F--Pre-post, EBCE/Control results on the Sex Role Socialization Questionnaire.

A change in program structure also was evaluated. Students were allowed to enroll in the EBCE program for the entire school year, the first semester, or the second semester.

Summary of Findings and Conclusions

Figure 1 presents the process and outcome objectives along with a summary statement regarding the relative level of achievement. The objective measures of the achievement of EBCE program objectives revealed only minor differences between EBCE and control groups which are suggestive of marginal achievement of objectives.

The preponderance of statistical evidence is in support of the assertion that the EBCE program has achieved its stated objective in commendable fashion.

In our opinion, the EBCE staff is especially deserving of commendations for strengthening the program's performance in those few areas which data from year one are suggested were in need of improvement. In addition to demonstrating achievement of objectives via objective measures, the program enjoys a stronger, more uniform base of support among all participants than it did last year. This claim is supported by comparing feedback data (Appendix E) from the first and second year evaluations. Whereas year one feedback contained comments that, in terms of weight of response, indicated problem areas associated with coordination, program relevance, and associated concerns, this year's feedback has changed to a markedly complimentary form, particularly with respect to improvement in formerly problematic areas. The assessment supports labeling the program a success.

FIGURE 1

ASSESSMENT OF EBCE PROGRAM OBJECTIVES FOR 1977-78

Process Objectives	Accomplished	Note
1. To be at full staff employment (no changes anticipated (by October 1, 1977).	X	
2. To formalize all contracts with AEL and with the Third-Party Evaluators by October 1, 1977.	X	
3. To implement by October 1, 1977, the evaluation procedures necessary for the documentation of the effectiveness of the program.	X	
4. To begin by October 1, 1977, a series of group seminars for EBCE students addressing the issues of sex-bias and sex-role stereotyping.	X	
5. To locate and identify in at least 19% of the local experience sites individuals in nontraditional job roles where EBCE students will be placed.	X	
6. To conduct EBCE orientation sessions for students during the first week of operation each semester.	X	
7. To finalize the first phase of the individualized learning plans, developed by the student and his/her Learning Coordinator, by the end of the first week of operation each semester.	X	
8. To have 90% of the EBCE students placed on experience sites pursuing their individualized program objectives by the end of the EBCE orientation week each semester.	X	100% placed
9. To have recruited students for second semester by January 13, 1978.	X	

Process Objectives	Accomplished	Note
10. To prepare quarterly reports and budget reviews on October 1, 1977; January 1, 1978; April 1, 1978; and July 1, 1978.	X	Assume July report will be completed on time.
11. Recruitment for the 1978-79 school year will have been completed by June 2, 1978.	X	
12. The Third Party Evaluation Report will be prepared and ready for submittal by June 30, 1978.	X	
13. The Annual Report and Budget Review will be completed by September 30, 1978.	X	May 19, 1978
14. The Project Continuation Application and Budget Request for FY '79 will be prepared and submitted by July 31, 1978.	X	May 19, 1978

Outcome Objectives	Results
OUTCOME:	
1. EBCE students will demonstrate equivalent or greater gains in basic skills than comparison group students.	Accomplished. The EBCE students demonstrated equivalent gains to the control group students.
2. EBCE students will demonstrate equivalent or greater gains in career maturity than comparison group students.	Accomplished. The EBCE students tended to demonstrate greater gains in career maturity than the control group students.
3. EBCE students will demonstrate equivalent or greater gains in attitudinal development than comparison group students.	Partially accomplished. With a single exception, the gains were equivalent for both groups.

Outcome Objectives	Results
4. Students will use instruments such as Work Activities Checklist, Work Situation Checklist, Values Instrument, and Chart for Relating School Subjects and Occupations to assess career, educational and personal needs and interests and will use the data to develop academic and career experiences.	The record of achievement on this objective is strongly positive. Significant gains have been demonstrated in strengthening the relationships between work and study. Moreover, the low level of negative feedback and generally high level of positive feedback concerning problems with documents referred to in their objective supports the contention that the objective has been commendably achieved.
5. Students will use instruments such as the Basic Skills Inventories to assess career, educational, and personal aptitudes and will use the data to develop academic and career experiences.	The Basic Skills Inventory was used in complete form. Generally high levels of positive feedback from all respondents support the assertion that this objective was achieved.
6. Students will observe various career requirements, restrictions, and opportunities through experience site placements and document these characteristics by completing related activities in the Student Career Guide. They will then use the data in developing viable career plans.	Comments from students, parents, and employers are uniformly positive in support of the assertion that the objective was achieved.
7. Students will determine the necessity of basic reading and mathematics skills for various careers at experience sites and then utilize scores from the Basic Skills Inventories to select learning objectives necessary to master those skills essential for rewarding career opportunities.	Interviews and project records indicate that the objective was accomplished. Moreover, supporting data from relevant subscales of the DAT also support the assertion that the objective was achieved. This particular objective represents an additional, specific improvement in performance for the program as compared with year one.

Outcome Objectives	Results
8. Students will develop Activity Sheets that utilize basic skills and/or academic learning in conjunction with available activities at experience sites. This integration of basic skills/academic learning and experience site activities will result in the application of refinement of basic skills/ academic learning development.	The record relative to this objective is markedly improved --to the point that achievement is substantially realized. Comments (Appendix E) relative to coordinator assistance and the comparative absence of negative comments concerning dissatisfaction concerning the objective's achievement.
9. Students will utilize various instruments for assessing personal needs, interests, and aptitudes, will participate in career exploration through experience site placements, and will complete the Final Review activity in the Student Career Guide as a function of generating preliminary career plans that are informed and realistic.	Although some minor concern was expressed concerning "tests" (Appendix E), this area continues to represent one area of particular achievement for the program.
10. Students will participate in career placements at experience sites and will engage in academic activities that relate to experience sites in the decision-making process antecedent to the selection of a career field.	Some minor concerns were voiced (Appendix E) which related to this objective. The preponderance of evidence, however, demonstrates achievement of the objective. Particular gains have been demonstrated in quality of orientation to sites and coordination of site experiences with academic studies. The learning coordinators have apparently realized a marked improvement in the outcomes associated with efforts in this area.
11. Parents, students, employers, labor union, and other involved community members will demonstrate a positive attitude toward, and continual support of, the EBCE program.	Interviews, along with parent, student and site personnel written feedback are uniformly positive indicators of strong program support. The program is generally regarded as being a good one, and participant attitudes are strongly positive.

Outcome Objectives	Results
12. Students participating in the EBCE program will participate, during orientation, in sex bias, sex-role stereotyping small-group workshops and will demonstrate a greater awareness and acceptance of, and participation in nontraditional job roles.	The EBCE evidence gains equivalent to the control group gains. The EBCE students did participate in or observed nontraditional job roles. The objective was partially achieved.

APPENDIX A

DETAILED DESCRIPTION OF PROCEDURES

Procedures

Outcome objectives 1, 2, 3, and 12 were evaluated with a pretest-posttest, treatment-control group design. Malcolm B. Young and Russell Schub (1975) described this type of design as being able to provide an accurate assessment of the impact of the program, if the pretest differences between participant and comparison groups are due to chance.

Outcome objective 11 was evaluated with a survey design. Young and Schub noted that this type of design can provide a description of quantitatively-supported estimates of various group characteristics.

Other process and outcome objectives were evaluated with a descriptive design. Existing materials, files, and records were examined to determine objective attainment.

Sampling

Instruments selected for use were simultaneously administered to the 51 treatment and 41 control students in a common setting. The evaluators administered the instruments and collected the responses. The pretest was administered on a date that coincided closely with the start of the program. The posttest was administered at the end of participation (January and May, 1978). Similar testing conditions prevailed during the pretest and posttest sessions.

Parents, students, and persons with whom students worked at experience sites comprised populations from which survey and interview data were gathered. Opinions of these groups were sought only at the end of the year.

In the instances where the assessment was accomplished through pretesting and posttesting, the EBCE and control groups contained subjects of the numbers and types described in Table 1. Complete data were collected from 51 EBCE students and 41 students in the Control group. Both groups appear to be roughly comparable in terms of sex ratios, racial composition, grade level, plans after high school, and educational levels of parents. Table 2 further supports the assertion that the groups resembled each other. Student occupational aspirations and occupational positions of parents show similar patterns.

Data Analysis

Outcome Objectives 1, 2, 3, 12

The analysis procedure for the pretest-posttest, treatment-control group design was analysis of covariance. This technique statistically controls within-group variance and also controls for lower-order interaction effects. The posttest mean scores for the treatment and control groups were compared with the F test while statistically controlling (covarying) the differences in pretest scores for sex and socioeconomic status. Results are reported for the nine subscales of the Differential Aptitude Tests (Form S, 1972 edition), the three subscales of the Career Development Inventory; the four subscales of the Coopersmith Self-Esteem Inventory, along with a total value for the SEI, and the four subscales of the Sex Role Socialization Questionnaire. Tables 3A, 4A, 5A, and 10A present data analysis summaries for all EBCE students placed in a single group. Tables 3B, 4B, 5B, and 10B comprise similar summaries, but the EBCE students are placed into three groups: (1) those who enrolled both semesters, (2) the first semester, and (3) the second semester.

Outcome Objective 11

Descriptive statistics and qualitative procedures were used to evaluate this objective. Frequency and percentage distributions along with narrative constitute the analysis techniques.

Other Objectives

The remaining process and outcome objectives were evaluated with data gleaned from program files and records. Narrative analysis and checklist summaries were used to evaluate these objectives.

Reference

Malcolm B. Young and Russell G. Schub. Evaluation and Educational Decision-Making: A Functional Guide to Evaluating Career Education, (Washington, D. C.: Office of Education/DHEW, 1975).

TABLE 1

FREQUENCY DISTRIBUTIONS FOR THE CATEGORICAL VARIABLES, 1977-78

Variables	EBCE Group (N=51) Frequency	Percent	Control Group (N=41) Frequency	Percent
Sex				
Male	22	43.2	18	43.9
Female	29	56.9	23	56.1
Race				
White	37	72.5	35	85.4
Black	11	21.6	6	14.6
Other	2	4.0	--	--
Grade Level				
10	17	33.3	--	--
11	10	19.6	18	43.9
12	24	47.0	23	56.1
Plans after High School				
None	14	27.5	2	4.9
Work--Full Time	7	13.7	6	14.6
Work--Part Time	11	21.6	12	29.3
Apprenticeship	1	2.0	0	0.0
Military Service	3	5.9	4	9.8
Vocational-Technical School	3	5.9	3	7.3
Junior College--Academic	1	2.0	0	0.0
Junior College--Technical	0	0.0	0	0.0
College-University	11	21.6	14	34.1
Father's Education				
Do not know	5	9.8	6	14.6
Elementary School	2	3.9	2	4.9
Some High School	7	13.7	2	4.9
High School Graduate	16	31.4	15	36.6
Some Post-Secondary	11	21.6	9	22.0
College Graduate	7	13.7	2	4.9
Some Graduate Work	1	2.0	2	4.9
Advanced Degree	2	3.9	3	7.2

TABLE 1 (Continued)

Variables	EBCE Group (N=51) Frequency	EBCE Group (N=51) Percent	Control Group (N=41) Frequency	Control Group (N=41) Percent
Mother's Education				
Do not know	3	5.9	3	7.3
Elementary Scho	0	0.0	1	2.4
Some High School	7	13.7	7	17.1
High School Graduate	19	37.3	21	51.2
Some Post-Secondary	16	31.4	4	9.8
College Graduate	3	5.9	3	7.3
Some Graduate Work	2	3.9	1	2.4
Advanced Degree	1	2.0	1	2.4
Sibling Dropouts				
0	42	82.4	35	85.4
1	5	9.8	4	9.8
2	2	3.9	2	4.9
3	1	2.0	0	0.0
4	1	2.0	0	0.0

TABLE 2

FREQUENCY DISTRIBUTIONS FOR CAREER ASPIRATIONS AND CURRENT PARENT OCCUPATIONS--1977-78

Occupations	EBCE Group (N=51)			Control Group (N=41)		
	Student	Father	Mother	Student	Father	Mother
1. Clerical	2 (3.9)[1]	2 (3.9)	9 (17.6)	4 (9.8)	2 (4.9)	5 (12.2)
2. Craftsperson	1 (2.0)	8 (15.7)	0 (0.0)	1 (2.4)	9 (22.0)	0 (0.0)
3. Farmer	3 (5.9)	0 (0.0)	0 (0.0)	1 (2.4)	1 (2.4)	0 (0.0)
4. Homemaker	0 (0.0)	1 (2.0)	17 (33.3)	1 (2.4)	0 (0.0)	19 (46.3)
5. Laborer	0 (0.0)	3 (5.9)	2 (3.9)	0 (0.0)	4 (9.8)	0 (0.0)
6. Manager	1 (2.0)	7 (13.7)	1 (2.0)	0 (0.0)	3 (7.3)	1 (2.4)
7. Military	1 (2.0)	2 (3.9)	0 (0.0)	1 (2.4)	0 (0.0)	1 (2.4)
8. Operative	0 (0.0)	6 (11.8)	1 (2.0)	0 (0.0)	6 (14.6)	2 (4.9)
9. Professional	25 (49.0)	4 (7.8)	6 (11.8)	16 (39.0)	5 (12.2)	6 (14.6)
10. Proprietor	2 (3.9)	1 (2.0)	2 (3.9)	1 (2.4)	2 (4.9)	0 (0.0)
11. Protective Service	2 (3.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.4)	0 (0.0)
12. Sales	2 (3.9)	3 (5.9)	1 (2.0)	0 (0.0)	3 (7.3)	5 (12.2)
13. Service	0 (0.0)	2 (3.9)	7 (13.7)	1 (2.4)	0 (0.0)	2 (4.9)
14. Technical	0 (0.0)	3 (5.9)	1 (2.0)	4 (9.8)	2 (4.9)	0 (0.0)
15. Other	4 (7.8)	0 (0.0)	0 (0.0)	2 (4.9)	0 (0.0)	0 (0.0)
16. Do Not Know	8 (15.7)	9 (17.7)	4 (7.9)	9 (21.9)	3 (7.3)	0 (0.0)

[1]The number in parenthesis is the percent of the total.

APPENDIX B

DATA FOR OUTCOME OBJECTIVE 1

EBCE students will demonstrate equivalent or greater gains in basic skills than comparison group students.

Instrumentation

The Differential Aptitude Test (DAT) provided a comprehensive measure for Outcome Objective 1. Eight different subscales constitute the DAT: verbal reasoning, numerical ability, abstract reasoning, clerical speed and accuracy, mechanical reasoning, space relations, spelling, and language usage. In addition, the verbal reasoning and numerical ability subscales are combined to form a composite indicator of general intellectual ability.

The DAT, particularly the verbal reasoning and numerical ability subscales, has been established and demonstrated by means of strength of correlations of subscale measures with course grades. The subscale reliability coefficients for the two forms of the test range from .89 to .97 (senior males, form S), .88 to .96 (senior females, form S), .89 to .96 (senior males, form T), and .88 to .97 (senior females, form T).

Results

Tables 3A and B contain the data summaries for evaluating this objective. The EBCE and the control groups did not differ significantly on any measure. No differences existed among the EBCE groups.

In summary, Outcome Objective 1 was accomplished. The EBCE students demonstrated equivalent gains in basic skills to the control group students.

TABLE 3A

MEANS, STANDARD DEVIATIONS (SD), AND ANALYSIS OF COVARIANCE SUMMARIES FOR THE DIFFERENTIAL APTITUDE TEST (DAT) SCORES ACROSS THE EBCE AND CONTROL GROUPS

DAT Subscale	Test	EBCE Mean	EBCE SD	Control Mean	Control SD	F	P
Verbal Reasoning (VR)	Pre	42.1	25.8	29.9	23.7	0.2	.68
	Post	46.8	29.6	36.9	26.3		
	Adj.[1] Post	44.0		46.1			
Numerical Ability (NA)	Pre	39.3	26.4	36.9	26.4	0.2	.65
	Post	43.3	26.5	43.0	25.7		
	Adj. Post	42.7		45.0			
VR + NA Composite	Pre	38.9	26.3	30.5	22.1	0.8	.36
	Post	42.5	28.3	38.7	24.8		
	Adj. Post	40.6		45.1			
Abstract Reasoning	Pre	46.4	27.1	46.7	28.3	0.8	.36
	Post	55.2	27.8	48.8	27.1		
	Adj. Post	54.8		50.2			
Clerical Speed and Accuracy	Pre	49.4	25.0	49.8	33.0	2.6	.11
	Post	47.9	26.0	56.8	33.3		
	Adj. Post	47.8		56.9			
Mechanical Reasoning	Pre	49.4	27.2	41.5	21.4	0.0	.99
	Post	56.0	29.2	49.4	25.5		
	Adj. Post	54.4		54.5			
Space Relations	Pre	41.3	26.3	44.2	35.1	0.6	.43
	Post	56.9	26.9	53.1	36.0		
	Adj. Post	56.7		53.5			
Spelling	Pre	40.6	29.5	37.2	26.1	0.7	.40
	Post	41.8	29.7	40.0	26.4		
	Adj. Post	40.6		44.0			

TABLE 3A (Continued)

DAT Subscale	Test	EBCE Mean	EBCE SD	Control Mean	Control SD	F	P
Language Usage	Pre	37.3	24.7	27.7	24.4	1.6	.21
	Post	39.8	27.6	26.1	24.7		
	Adj. Post	37.5		33.3			

[1]Adj. Post = Adjusted Posttest.

TABLE 3B

MEANS AND ANALYSIS OF COVARIANCE SUMMARIES FOR THE DIFFERENTIAL APTITUDE TEST (DAT) SCORES ACROSS THREE EBCE GROUPS (YEAR, FIRST SEMESTER, SECOND SEMESTER PARTICIPATION) AND ONE CONTROL GROUP

DAT Subscale	Test	EBCE Year	EBCE 1st Sem.	EBCE 2nd Sem.	Control	F	P
Verbal Reasoning (VR)	Pre	49.0	32.1	41.9	29.9	0.8	.50
	Post	57.1	39.8	39.9	36.9		
	Adj.[1] Post	45.6	45.4	38.6	45.8		
Numerical Ability (NA)	Pre	41.6	35.3	39.7	36.9	0.3	.80
	Post	47.4	37.1	43.4	43.0		
	Adj. Post	44.4	39.0	43.7	45.0		
VR + NA Composite	Pre	43.8	31.1	39.3	30.5	0.9	.45
	Post	51.0	35.6	37.6	38.7		
	Adj. Post	44.3	40.1	36.5	44.8		
Abstract Reasoning	Pre	52.2	39.5	44.9	46.7	0.4	.75
	Post	62.2	49.1	51.6	48.8		
	Adj. Post	56.5	52.8	54.3	50.1		
Clerical Speed and Accuracy	Pre	52.6	46.1	48.3	49.8	1.5	.21
	Post	47.1	51.4	45.9	56.8		
	Adj. Post	44.6	53.8	47.0	56.9		
Mechanical Reasoning	Pre	50.0	48.7	48.5	41.6	0.1	.93
	Post	58.5	53.1	55.4	49.4		
	Adj. Post	55.9	51.7	54.9	54.5		
Space Relations	Pre	53.1	32.2	34.3	44.2	0.6	.59
	Post	69.0	53.9	45.2	53.1		
	Adj. Post	57.9	59.2	53.5	53.4		
Spelling	Pre	43.5	39.5	37.9	37.2	0.8	.48
	Post	48.4	37.8	36.9	40.0		
	Adj. Post	43.2	36.7	40.6	44.0		

TABLE 3B (Continued)

Subscale	Test	EBCE Year	EBCE 1st Sem.	EBCE 2nd Sem.	Control	F	P
Language Usage	Pre	40.9	28.6	40.0	27.7	0.7	.55
	Post	44.5	30.3	41.6	26.1		
	Adj. Post	39.2	36.5	36.5	33.2		

[1]Adj. Post = Adjusted Posttest.

APPENDIX C

DATA FOR OUTCOME OBJECTIVE 2

EBCE students will demonstrate equivalent or greater gains in career maturity than comparison group students.

Instrumentation

The Career Development Inventory (CDI) was employed to evaluate Outcome Objective 2. This instrument was developed by Donald E. Super and his associates to measure three components of career development. The three subscales are the following: planning orientation, resources for exploration, and information and decision making. The students complete this form in about 30 minutes. Established reliability and validity characteristics support the use of the CDI for evaluating outcome objective number two.

Results

Tables 4A and 4B summarize the data analysis results for Outcome Objective 2. The total EBCE group tended to show greater gains than the control group on the Planning Orientation and Resources for Exploration subscales. The yearlong EBCE group demonstrated a larger gain than the semester participants on the Information and Decision-Making subscale. The second-semester EBCE group tended to do better on the Resources for Exploration subscale than any other group.

TABLE 4A

MEANS, STANDARD DEVIATIONS (SD), AND ANALYSIS OF COVARIANCE SUMMARIES FOR CAREER DEVELOPMENT INVENTORY (CDI) SCORES ACROSS THE EBCE AND CONTROL GROUPS 1977-78

CDI Subscale	Test	EBCE Mean	EBCE SD	Control Mean	Control SD	F	P
PART I	Pre	97.5	19.2	112.1	68.4	2.5	.10
Planning	Post	112.3	18.5	108.8	22.1		
Orientation	Adj.[1]						
	Post	113.4		106.5			
PART II	Pre	289.0	55.0	278.2	49.8	2.6	.11
Resources	Post	305.2	42.2	284.8	48.9		
for	Adj.						
Exploration	Post	304.1		287.1			
PART III	Pre	25.1	15.8	17.5	3.2	0.3	.59
Information	Post	43.4	13.0	41.9	13.9		
and Decision	Adj.						
Making	Post	42.3		44.0			

[1]Adjusted Posttest

TABLE 4B

MEANS AND ANALYSIS OF COVARIANCE SUMMARIES FOR CAREER DEVELOPMENT INVENTORY (CDI) SCORES ACROSS THREE EBCE GROUPS (YEAR, FIRST SEMESTER, SECOND SEMESTER PARTICIPATION) AND ONE CONTROL GROUP

CDI Subscale	Test	EBCE Year	EBCE 1st Sem.	EBCE 2nd Sem.	Control	F	P
PART I	Pre	91.2	109.3	97.7	112.1	1.0	.40
Planning	Post	113.7	112.3	110.4	108.8		
Orientation	Adj.[1]						
	Post	115.4	110.5	112.9	106.5		
PART II	Pre	286.0	274.7	304.0	278.2	2.0	.12
Resources	Post	298.9	291.0	325.1	284.8		
for	Adj.						
Exploration	Post	298.5	294.2	320.4	286.7		
PART III	Pre	15.3	16.1	45.9	17.5	3.3	.03
Information	Post	43.6	34.2	50.0	41.9		
and Decision	Adj.						
Making	Post	49.9	39.9	29.7	46.3		

[1]Adjusted Posttest

APPENDIX D

DATA FOR OUTCOME OBJECTIVE 3

EBCE students will demonstrate equivalent or greater gains in attitudinal development than comparison group students.

Instrumentation

The Self-Esteem Inventory, Form A (SEI) was used to measure Outcome Objective 3. This instrument, developed by Stanley Coopersmith, contains 58 items and four subscales. Form A provides an assessment of self-esteem using four components general social self-peers, home-parents, and school-academic.

The items are short statements, generally answered "like me" or "unlike me." The split-half reliability ranges from .87 to .90. Test-retest reliability estimates range from .64 (12-month intervals) to .88 (five-week intervals). In addition, convergent, discriminant, and predictive validity types have been established. On the basis of studies conducted to date, SEI scores are significantly related to creativity, academic achievement, resistance to group, and other important variables. This provided a reliable and valid measure for outcome objective number three.

Results

The data analysis summaries for Outcome Objective 3 constitute Tables 5A and 5B. No significant differences were found in four of the five subscales for the overall groups. The control group made a greater gain than the EBCE group on the Home subscale and showed a similar tendency for the overall score. Examining Table 5B reveals that the second-semester EBCE students tend to be the lowest. With one exception, this objective was accomplished.

TABLE 5A

MEANS, STANDARD DEVIATIONS (SD), AND ANALYSIS OF COVARIANCE SUMMARIES FOR THE SELF-ESTEEMS INVENTORY (SEI) SCORES ACROSS THE EBCE AND CONTROL GROUPS, 1977-78

SEI Subscale	Test	EBCE Mean	EBCE SD	Control Mean	Control SD	F	P
General	Pre	37.1	12.8	40.7	6.8	0.9	.34
	Post	39.5	7.2	42.2	6.5		
	Adj.[1] Post	39.9		41.3			
Social	Pre	13.2	7.9	13.1	2.6	0.5	.47
	Post	13.2	3.3	13.8	2.4		
	Adj. Post	13.3		13.8			
Home	Pre	10.7	11.2	11.5	4.7	6.0	.02
	Post	10.0	4.5	12.6	4.5		
	Adj. Post	10.0		12.5			
Academic	Pre	9.6	4.8	11.4	3.3	0.7	.40
	Post	9.3	4.0	11.0	3.8		
	Adj. Post	9.6		10.3			
Total	Pre	66.8	22.7	73.4	14.2	3.3	.07
	Post	72.1	13.8	79.8	12.3		
	Adj. Post	72.8		78.0			

[1]Adjust Posttest

TABLE 5B

MEANS AND ANALYSIS OF COVARIANCE SUMMARIES FOR THE SELF-ESTEEMS INVENTORY (SEI) SCORES ACROSS THREE EBCE GROUPS (YEAR, FIRST SEMESTER, SECOND SEMESTER PARTICIPATION) AND ONE CONTROL GROUP

SEI Subscale	Test	EBCE Year	EBCE 1st Sem.	EBCE 2nd Sem.	Control	F	P
General	Pre	39.0	36.0	35.4	40.7	0.5	.67
	Post	39.6	40.3	38.6	42.2		
	Adj.[1] Post	39.3	41.0	40.0	41.3		
Social	Pre	11.9	12.9	15.1	13.1	0.3	.86
	Post	13.1	13.6	13.1	13.8		
	Adj. Post	13.2	13.7	13.1	13.8		
Home	Pre	9.9	8.6	13.6	11.5	2.3	.10
	Post	10.3	9.5	9.7	12.6		
	Adj. Post	10.4	10.1	9.5	12.5		
Academic	Pre	10.3	8.8	9.2	11.4	0.3	.81
	Post	9.6	9.3	8.9	11.0		
	Adj. Post	9.5	10.1	9.5	11.3		
Total	Pre	70.8	67.3	60.1	73.4	1.2	.31
	Post	72.8	72.8	70.4	79.8		
	Adj. Post						

[1]Adjusted posttest

APPENDIX E

DATA FOR OUTCOME OBJECTIVE 11

Parents, students, employers, labor union, and other involved community members will demonstrate a positive attitude toward, and continual support of, the EBCE program.

TABLE 6

SUMMARY OF PARENT RESPONSES
EXPERIENCE BASED CAREER EDUCATION EVALUATION
WICHITA EAST HIGH SCHOOL*

Question	Agreement: Strong N	Agreement: Strong % of Total	Agreement: Mild N	Agreement: Mild % of Total	Neutral N	Neutral % of Total	Disagreement: Mild N	Disagreement: Mild % of Total	Disagreement: Strong N	Disagreement: Strong % of Total
1. The results of the EBCE program were generally worthwhile.	19	79.2	4	16.7	1	4.2	0	0	0	0
2. The EBCE program produced positive attitudes and academic achievement.	19	79.2	4	16.7	1	4.2	0	0	0	0
3. The EBCE program was run efficiently.	17	70.8	5	20.8	2	8.3	0	0	0	0
4. Student needs and interests were given appropriate consideration.	19	79.2	4	16.7	1	4.2	0	0	0	0

Question	Responses@ N = YES	N = PART	N = NO
Was there any feature about the way the EBCE program operated that you thought particularly effective, appropriate, or useful?	19	1	4

Content of "YES" responses and number of comments ( ).

Incentives keep students in school (1); Relevant site-related assignments (1); Exposure to occupation and career choices (6); Learning coordinator encouragement (3); Good program in general (1); Excellent staff at East (1); Individualization of program to student (2); Child learned responsibility (1); Interest and ability exploration (1); Meeting and getting to know people on work sites (1); One-to-one student-teacher relation (1).

TABLE 6 (Continued)

Question			
6. Was there any feature about the way the EBCE program operated that you thought particularly ineffective, inappropriate, or useless?	Responses@		
	N = YES	N = PART	N = NO
	5	2	17
	Content of "YES" responses and number of comments ( ).		
	More visitation of sites by learning coordinator (1); The _____program should have yielded more (1); More frequent, supervised study (1); Four hours without and four hours with pay would be appropriate (1); Loss of extracurricular activities (1); Some sites provided limited work opportunities (1); The _____ experience was primarily custodial, and the _____ experience did not materialize (1).		
7. General comments of suggestion that would help improve the EBCE program?	Responses		
	Comments	No Comments	
	18	6	
	Content of comments and number of comments by category ( ).		
	Good program. Keep it up! (9); Control expenses (gas, etc.,) related to some assignments (1); Opportunities to shape attitudes positively are good. Continue. (1); More time for academics (3); Create more community awareness/acceptance (1); Employers should give more on-job assignments (1); Prohibit student exploitation by site personnel (1); More utility and government experience (1).		

*N = 24

@Responses were content-analyzed. Parents provided comments only with a "yes" or "comment" response. Total N of content may exceed "Yes" or "comment" total because of multiple responses per respondent.

TABLE 7

SUMMARY STUDENT RESPONSES
EXPERIENCE BASED CAREER EDUCATION EVALUATION

Question	Agreement: Strong N	Agreement: Strong % of Total	Agreement: Mild N	Agreement: Mild % of Total	Neutral N	Neutral % of Total	Disagreement: Mild N	Disagreement: Mild % of Total	Disagreement: Strong N	Disagreement: Strong % of Total
1. The results of the EBCE program were generally worthwhile.	21	67.7	7	22.6	2	6.5	1	3.2	0	0
2. The EBCE program produced positive attitudes and academic achievement.	15	48.4	10	32.2	3	9.7	3	9.7	0	0
3. The EBCE program was run efficiently.	16	51.6	9	29	6	19.4	0	0	0	0
4. Student needs and interests were given appropriate consideration.	16	51.6	13	41.9	2	6.5	0	0	0	0

5. Was there any feature about the way the EBCE program operated that you thought particularly effective, appropriate, or useful?

Responses		
N = YES	N = PART	N = NO
15	12	4

Content of "YES" responses and number of comments ( ).

Career choice availability (3); Help with occupational choice (4); Freedom (2); Opportunities to apply learning (1); Weekly interviews with learning coordinator (1); Interviews and letter of introduction (1); Learning coordinators are helpers and friends (2); Efficiency of program (1).

6. Was there any feature about the way the EBCE program operated that you thought particularly ineffective, inappropriate, or useless?

Responses		
N = YES	N = PART	N = NO
0	8	23

TABLE 7 (Continued)

Question	Responses@	
	Comments	No comment
7. General comments or suggestions that would help improve the EBCE program?	16	15

Content of comments and number of comments by category ( ).

Learning coordinators could provide a little more help (1); Treat students in a more individualized manner (2); Have employers give assignments that will increase feelings of belonging (1); Give more time to student academic needs (2); More time on each site (1); More sites (1); Fewer assignments and more time for completion (1); More visits to colleges and universities (1); Better documentation of accomplishments (1); Too many tests (1); Promote the program (1); Great program--thanks (3).

*N = 31

@Responses were content-analyzed. Students provided comments only with a "yes" or "comment" response. Total N of content may exceed "yes" or "comment" total because of multiple responses per respondent.

TABLE 8

SUMMARY OF RESOURCE PERSON' COMMENTS
EXPERIENCE BASED CAREER EDUCATION EVALUATION
WICHITA EAST HIGH SCHOOL*

Question	Agreement Strong N	Agreement Strong % of Total	Agreement Mild N	Agreement Mild % of Total	Neutral N	Neutral % of Total	Disagreement Mild N	Disagreement Mild % of Total	Disagreement Strong N	Disagreement Strong % of Total
1. The results of the EBCE program were generally worthwhile.	13	72.2	5	27.7	0	0	0	0	0	0
2. The EBCE program produced positive attitudes and academic achievement.	10	55.5	7	38.8	1	5.5	0	0	0	0
3. The EBCE program was run efficiently.	13	72.2	4	22.2	1	5.5	0	0	0	0
4. Student needs and interests were given appropriate consideration.	15	83.3	2	11.1	1	5.5	0	0	0	0

5. Was there any feature about the way the EBCE program operated that you thought particularly effective, appropriate, or useful?

Responses@		
N = YES	N = PART	N = NO
13	0	5

Content of "yes" responses and number of comments ( ).

Positive student attitudes (1); Variety of work experiences (2); On the job training (3); Prior knowledge of expectations held by program personnel for site (1); Learning coordinator interest and follow-up (1); Individual help from learning coordinator for students (2); Opportunities for students to work with a variety of people (1); Exposure to different vocational alternatives (1).

TABLE 8 (Continued)

Question	Responses		
	N = YES	N = PART	N = NO
6. Was there any feature about the way the EBCE program operated that you thought particularly ineffective, inappropriate, or useless?	2	1	15

Content of "yes" responses and number of comments.

Lack of one student's interest (1); Lack of clarity of expectation presented to students (1); Would have liked larger number of students (1); Inefficiency of instructor knowledge of a technical field (1).

Question	Responses@	
	Comments	No Comments
7. General comments or suggestions that would help improve the EBCE program?	12	6

Content of comments and number of comments by category ( ).

Send more students. Good program! (1); Provide better match of student interests and site opportunities (1); At least one full day on-site would have complemented the half-day's of exposure (1); Provide better publicity on the program throughout the school system (11); Provide longer exposure on-site (1); Determine the cost-effectiveness of the program (1); Make students more aware of importance of punctuality and other consumer job expectations (1); Expand the program (1).

*N = 18

@Responses were content-analyzed. Resource persons provided comments only with a "yes" or "comment" response. Total N of content may exceed "yes" or "comment" total because of multiple responses per respondent.

Note. The site visit interviews were incorporated in this tabulation.

APPENDIX F

DATA FOR OUTCOME OBJECTIVE 12

Students participating in the EBCE program will participate, during orientation, in sex bias, sex-role stereotyping small-group workshops and will demonstrate a greater awareness and acceptance of, and participation in nontraditional job-roles.

Instrumentation

The Sex Role Socialization (SRS) Questionnaire provided the evaluation data for Outcome Objective 12. This measure was developed by Broverman, Broverman, Clarkson, Rosenkrantz, and Voyel (1970). The 36 items are completed twice by the respondent, once using the items to describe an adult male. Twenty-five items are male-valued and 11 female-valued. The items are scored separately for the male and female descriptions for the male-valued items and then the female-valued items. The result is four subscales: male-male, male-female, female-male, and female-female.

The developers hold that the items are typical stereotypes of socially desirable male and female behaviors or traits. The reliability and validity of the SRS supported its use to evaluate Outcome Objective 12.

Results

The summary of the results for this objective comprises Tables 10A and 10B. None of the analyses are significant. The conclusion is that no differences are apparent between the EBCE and control groups.

TABLE 10A

MEANS, STANDARD DEVIATIONS (SD), AND ANALYSIS OF COVARIANCE SUMMARIES FOR THE SEX ROLE SOCIALIZATION (SRS) SCORES ACROSS THE EBCE AND CONTROL GROUPS 1977-78

SRS Subscale	Test	EBCE Mean	EBCE SD	Control Mean	Control SD	F	P
Male-Male	Pre	3.6	1.0	3.1	1.0	1.0	.33
	Post	4.5	1.0	4.8	1.1		
	Adj.[1] Post	4.5		4.8			
Male-Female	Pre	2.1	1.4	1.2	.40	0.1	.73
	Post	4.1	1.0	4.3	1.1		
	Adj. Post	4.13		4.22			
Female-Male	Pre	2.8	1.0	2.2	.92	0.3	.59
	Post	4.0	1.0	3.9	.94		
	Adj. Post	3.99		3.85			
Female-Female	Pre	2.5	1.8	1.4	.55	0.0	.84
	Post	4.6	1.2	4.6	1.1		
	Adj. Post	4.59		4.65			

[1]Adjusted Posttest

TABLE 10B

MEANS AND ANALYSIS OF COVARIANCE SUMMARIES FOR THE SEX ROLE SOCIALIZATION (SRS) SCORES ACROSS THREE EBCE GROUPS (YEAR, FIRST SEMESTER, SECOND SEMESTER) AND ONE CONTROL GROUP

SRS Subscale	Test	EBCE Year	EBCE 1st Sem.	EBCE 2nd Sem.	Control	F	P
Male-Male	Pre	3.0	3.4	4.6	3.1	0.6	.62
	Post	4.4	4.8	4.6	4.8		
	Adj.[1] Post	4.4	4.7	4.6	4.8		
Male-Female	Pre	1.2	1.4	4.0	1.2	0.7	.58
	Post	4.1	4.4	3.8	4.3		
	Adj. Post	3.8	4.1	5.0	4.0		
Female-Male	Pre	2.3	2.8	3.5	2.2	0.3	.80
	Post	4.1	3.9	3.8	3.9		
	Adj. Post	4.1	3.9	3.8	3.9		
Female-Female	Pre	1.3	1.7	4.9	1.4	0.3	.79
	Post	4.4	4.8	4.7	4.6		
	Adj. Post	4.4	4.9	4.6	4.6		

[1]Adjusted Posttest